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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,891	06/17/1999	GUIDO GHISOLFI	32461/GM/1P	5842

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EXAMINER
PATTERSON, MARC A

ART UNIT	PAPER NUMBER
1772	22

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No.	Applicant(s)	
	09/334,891	GHISOLFI, GUIDO	
	Examiner	Art Unit	
	Marc A Patterson	1772	

-- The MAILING DATE of this c mmunicati n appears on the cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 103(a) rejection of Claims 1 – 5, 10 – 14 and 16 – 17 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185), 35 U.S.C. 103(a) rejection of Claims 7 – 8 and 18 – 21 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185) and further in view of Hubbard et al (WO 97/47694) and 35 U.S.C. 103(a) rejection of Claims 9, 15 and 22 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185) and further in view of The Encyclopedia of Polymer Science and Engineering (Volume 12, page 214, 1985), of record on page 2 of the previous Action, are withdrawn.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase 'being obtained by folding' is indefinite as its meaning is unclear. The phrase also appears to be directed to a method limitation, which is given little patentable weight

as discussed below. For purposes of examination, the phrase will be assumed to mean that the multi – layer material comprises crease lines. Claim 16 recites the limitation "the polyester resin forming the layers" in line 3. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 recites the limitation "the closure" in line 17. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase 'capable of conferring' is indefinite as it is unclear whether the material confers or not. For purposes of examination, the phrase will be assumed to mean 'confers.' The phrase 'is treated' is indefinite as its meaning is unclear. The phrase also appears to be directed to a method limitation, which is given little patentable weight as discussed below. For purposes of examination, the phrase will be assumed to mean 'comprises.'

6. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase 'capable to impart' is indefinite as it is unclear whether the film

imparts or not. For purposes of examination, the phrase will be assumed to mean 'which imparts.'

7. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 recites the limitation "the polyester resin forming the layers" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 16 – 17, 23 – 24, 29 – 33 and 35 – 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991).

With regard to Claims 16 – 17, Colombo discloses a recyclable container (column 2, lines 62 – 68; column 3, lines 1 – 2) for food (column 1, lines 13 – 19) comprising a multi – layer material (column 1, lines 13 – 19) comprising an aromatic polyester resin (polyethylene terephthalate; column 1, lines 28 – 38), the material comprising a layer of a foamed sheet (column 3, lines 54 – 63), and, adhered to the foamed sheet, a film of polyester resin (column 4, lines 18 – 30) which is heat – sealable (the film and layer are adhered by heat – sealing; column

3, lines 3 – 15); the multi – layer material comprises a crease (the container is hinged and perforated ; column 3, lines 16 – 20). Colombo fails to disclose a foamed sheet having a density of less than 700 kg/m^3

Hayashi teaches the use of a foamed sheet having a density of less than 700 kg/m^3 in the making of a laminate of foamed and non – foamed resin, for the purpose of maintaining good heat insulating properties (column 9, lines 1 – 19). The desirability of providing for a density of less than 700 kg/m^3 in Colombo, which is a laminate of foamed and non – foamed resin, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a density of less than 700 kg/m^3 in Colombo in order to maintain good heat insulating properties as taught by Hayashi.

Colombo and Hayashi also fail to disclose a polyester film having a melting point of 50 to 200 degrees Celsius. However, Colombo and Hayashi discloses a film having a melting point greater than 200 degrees Celsius (column 4, lines 18 – 30). Therefore, the melting point would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the melting point, since the melting point would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Colombo and Hayashi. *In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).*

With regard to the claimed aspect of the container 'being formed by folding,' the scope of the claims falls within the limitations of Colombo and Hayashi as discussed above. The

method of making the container (product – by – process) is given little patentable weight. Applicant would need to demonstrate, by verified showing, the unexpected advantages accruing from the method of making as claimed.

With regard to Claim 29, the scope of the claims falls within the limitations of Colombo and Hayashi as discussed above. The method of making the container (product – by – process) is given little patentable weight. Applicant would need to demonstrate, by verified showing, the unexpected advantages accruing from the method of making as claimed.

With regard to Claims 30 – 31, as discussed above, the foamed sheet has any density less than 700 kg/m^3

With regard to Claims 32 – 33, the container has a thickness of 0.2 to 3 mm (35 mil; column 5, lines 18 – 28).

With regard to Claims 24 and 35 – 37, Colombo and Hayashi fail to disclose a container in which the heat sealable film comprises two layers, and in which the polyester film is adhered on two sides of the foamed sheet. However, Colombo and Hayashi disclose a container in which the heat sealable film comprises one layer, and in which the polyester film is adhered on one side of the foamed sheet, as discussed above. Therefore, the number of layers in the sealable film and number of sides having a sealable film would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the number of layers in the sealable film and number of sides having a sealable film, since the number of layers in the sealable film and number of sides having a sealable film would be readily determined through

routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Colombo and Hayashi. *In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).*

With regard to the claimed aspect in Claims 24 and 36 – 37 of the film being 'coextruded,' the scope of the claims falls within the limitations of Colombo and Hayashi as discussed above. The method of making the container (product – by – process) is given little patentable weight. Applicant would need to demonstrate, by verified showing, the unexpected advantages accruing from the method of making as claimed.

10. Claims 18 – 21 and 25 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of Hubbard et al (WO 97/47694).

Colombo and Hayashi disclose a multi – layer material comprising a heat – sealable film as discussed above. With regard to Claims 18 – 19 and 21, Colombo and Hayashi fail to disclose a heat – sealable film which is coated with potassium or lithium polysilicates, and having an oxygen permeation rate lower than 70 $ml/m^3/24h/atm$.

Hubbard et al teach the metallization of polyester with lithium polysilicate (page 10, lines 5 – 24) for the purpose of obtaining a film having an oxygen permeation rate lower than 70 $ml/m^3/24h/atm$ (page 21, lines 17 – 30). The desirability of providing for metallization with lithium polysilicate in Colombo et al, which is a film for containing food, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for lithium polysilicate (which is also silicon

oxide) in Colombo and Hayashi in order to obtain a film having an oxygen permeation rate lower than 70 ml/m^3/24h/atm as taught by Hubbard et al.

With regard to Claim 20, Hubbard et al fail to disclose an oxygen permeation rate lower than 0.3 ml/m^3/24h/atm. However, Hubbard et al disclose an oxygen permeation rate lower than 0.3 ml/m^3/24h/atm. Therefore, the oxygen permeation rate would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the oxygen permeation rate, since the oxygen permeation rate would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Hubbard et al. *In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).*

11. Claims 22, 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985).

Colombo and Hayashi disclose a multi – layer material comprising a heat – sealable film as discussed above. With regard to Claims 22, 28 and 34, Colombo and Hayashi fail to disclose a heat sealable film which is a polyethylene terephthalate – isophthalate copolymer.

The Encyclopedia of Polymer Science and Engineering (Volume 12, page 214, 1985) teaches that it is known in the art to use polyethylene terephthalate – isophthalate copolymer instead of polyethylene terephthalate as the outer layer of a heat sealable polyester film for the purpose of obtaining a film having a lower softening and melting point.

It would therefore have been obvious to one of ordinary skill in the art to use a polyethylene terephthalate – isophthalate copolymer (thus an aromatic polyester obtained by polycondensation of a copolyethylene terephthalate in which at least 1 mole percent of the units deriving from therephthalic acid are substituted by units derived from isophthalic acid) as the outer layer of the heat sealable film in Colombo and Hayashi in order to obtain a package which is heat sealable at a lower temperature.

The Encyclopedia of Polymer Science and Engineering fails to disclose an aromatic polyester obtained by polycondensation of a copolyethylene terephthalate in which 10 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid and 10 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid. However, The Encyclopedia of Polymer Science and Engineering discloses a copolyethylene terephthalate in which at least 1 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid as discussed above. Therefore, the amount of units derived from isophthalic acid would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary amount of units derived from isophthalic acid, since amount of units derived from isophthalic acid would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by The Encyclopedia of Polymer Science and Engineering *In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).*

ANSWERS TO APPLICANT'S ARGUMENTS

12. Applicant's arguments regarding the 35 U.S.C. 112 second paragraph rejection of Claims 1 and 5, 35 U.S.C. 103(a) rejection of Claims 1 – 5, 10 – 14 and 16 – 17 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185), 35 U.S.C. 103(a) rejection of Claims 7 – 8 and 18 – 21 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185) and further in view of Hubbard et al (WO 97/47694) and 35 U.S.C. 103(a) rejection of Claims 9, 15 and 22 as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Hayashi (U.S. Patent No. 5,000,991) and Sumida (Japanese Patent No. 09039185) and further in view of The Encyclopedia of Polymer Science and Engineering (Volume 12, page 214, 1985), of record on page 2 of the previous Action, have been considered and have been found to be persuasive. The rejections are therefore withdrawn. The new 35 U.S.C. 112 second paragraph rejection of Claims 16 – 18, 25 and 36, 35 U.S.C. 103(a) rejection of Claims 16 – 17 and 23 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991), 35 U.S.C. 103(a) rejection of Claims 18 – 21 and 25 – 27 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of Hubbard et al (WO 97/47694) and 35 U.S.C. 103(a) rejection of Claims 22, 28 and 34 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.
Marc Patterson
Art Unit 1772

HAROLD PYON
SUPERVISORY PATENT EXAMINER 4/12/03